

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, APS PUSHBUTTONS AND SIGNS AT THE INTERSECTION OF MD 129 (PARK HEIGHTS AVENUE) AND SLADE AVENUE IN BALTIMORE COUNTY. MD 129 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION CURRENTLY OPERATES IN A NEMA SEVEN-PHASE FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE-PERMISSIVE PHASING FOR NORTHBOUND AND SOUTHBOUND MD 129 AND EASTBOUND SLADE AVENUE. AN ALTERNATE PEDESTRIAN PHASE ACROSS THE NORTH LEG OF MD 129 AND A CONCURRENT PEDESTRIAN PHASE ACROSS THE WEST LEG OF SLADE AVENUE. WE WILL BE ADDING ALTERNATE PEDESTRIAN PHASES FOR ALL FOUR LEGS OF THE INTERSECTION.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER HOUSED IN A BASE MOUNTED CABINET WILL BE USED. AN APS CENTRAL CONTROL UNIT WILL BE FURNISHED BY THE CONTRACTOR AND INSTALLED BY SHA.

SPECIAL NOTES

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE.

APS PUSHBUTTON MESSAGES

FOR PARK HEIGHTS AVENUE CROSSING

WAIT: "WAIT TO CROSS PARK HEIGHTS AT SLADE"
WALK: RAPID TICK
WALK: "WALK SIGN ON TO CROSS PARK HEIGHTS"

FOR SLADE AVENUE CROSSING

WAIT: "WAIT TO CROSS SLADE AT PARK HEIGHTS"
WALK: RAPID TICK
WALK: "WALK SIGN ON TO CROSS SLADE"

CONTACT PERSONS FOR DISTRICT #4 ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: (410)321-2781

MR. MICHAEL PASQUARIELLO
UTILITY ENGINEER
PHONE: (410)321-2841

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: (410)321-2761

CONACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
DIVISION
PHONE: (410)787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF
TRAFFIC OPERATIONS
(410)787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
(410)787-7650

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
(410)787-7676

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA.

CATEGORY CODE	DESCRIPTION	UNIT	QUANTITY
NONE			

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CATEGORY CODE	DESCRIPTION	UNIT	QUANTITY
203030	TEST PIT EXCAVATION	EA	7
585620	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING	LF	1140
585624	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING	LF	105
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	5
801104	WOOD SIGN SUPPORT 4 INCH X 4 INCH	LF	114
801605	SHEET ALUMINUM SIGNS	SF	126
801711	REMOVE EXISTING GROUND MOUNTED SIGN AND SUPPORT	SF	12
802145	ADJUST EXISTING HANDHOLE	EA	3
802501	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE	LF	160
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	90
821003	BREAKAWAY PEDESTAL POLE - ANY SIZE	EA	7
837001	GROUND ROD 3/4 INCH DIAMETER X 4 INCH	EA	1
860292	CUT, CLEAN, GALVANIZE AND CAP SIGNAL STRUCTURE	EA	5
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)	LF	880
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)	LF	925
800000	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON	EA	8
800000	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL	EA	8
800000	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT PER ASSIGNMENT	LS	1
800000	APS CENTRAL CONTROL UNIT	EA	1
800000	PEDESTRIAN EDUCATION SIGN R10-3(1) (9"x15")	SF	7.5

EQUIPMENT LIST "C"

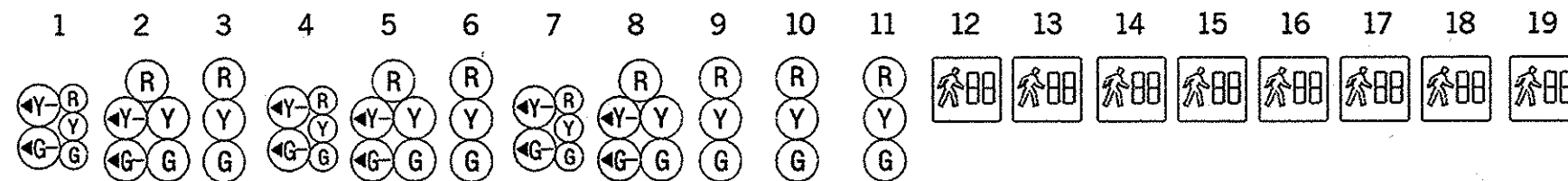
C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND RETURNED TO SHA.

ALL MATERIALS AND EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

GENERAL NOTES

- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
- ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER AT 410-787-7652 TO COORDINATE.

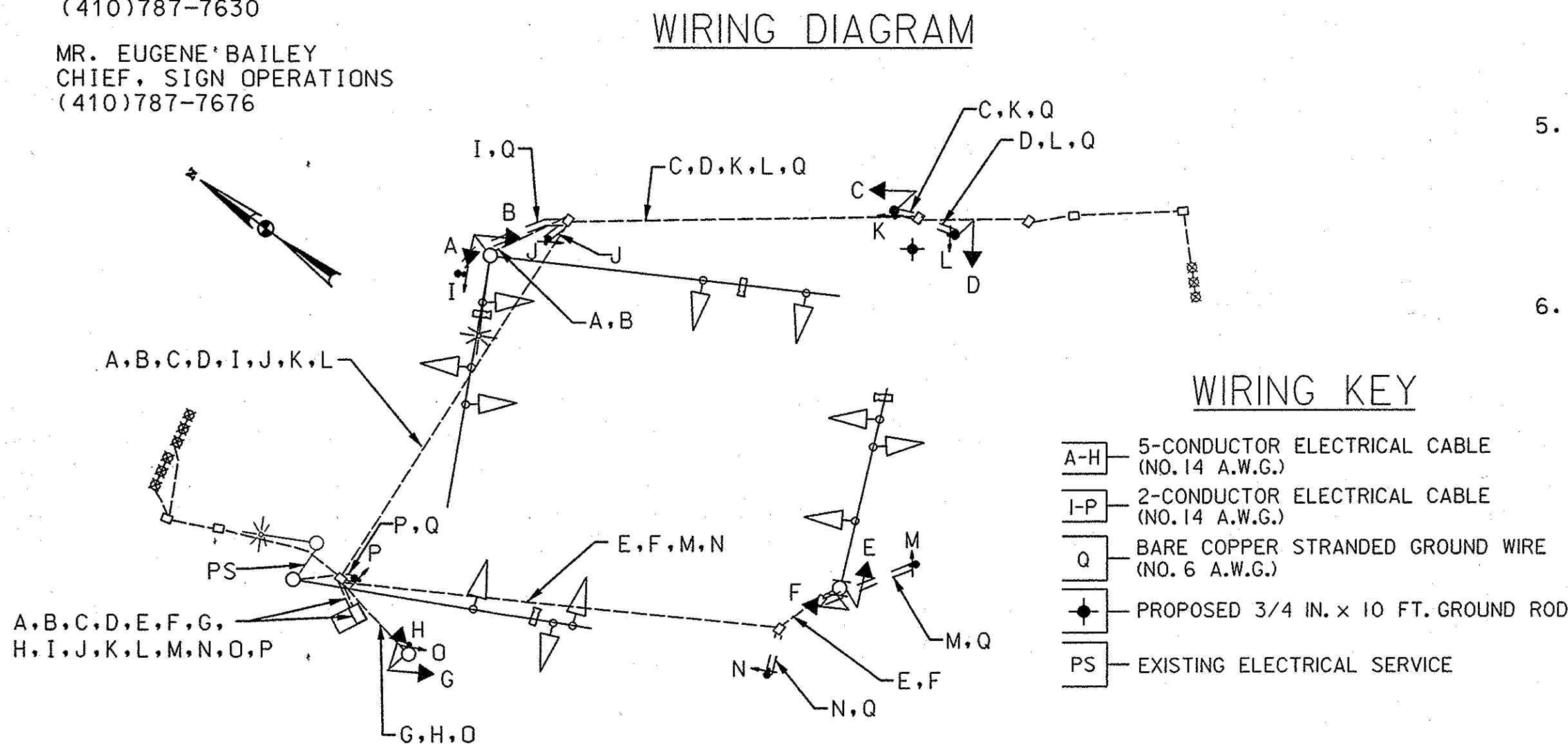
PHASE CHART



PHASE 1 AND 5	+GR-+GR-	R	+GR-+GR-	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6																			
PHASE 1 AND 6	+GG-+GG-	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 6 CHANGE	+YG-+YG-	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 5	R	R	R	+GG-+GG-	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 AND 5 CHANGE	R	R	R	+YG-+YG-	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 6 ALT.	G	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE/COUNTDOWN	G	G	G	G	G	G	R	R	R	R	R	DW	DW	DW	DW	FLDW	FLDW	FLDW	FLDW
2 & 6 ALT. CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 7	R	R	R	R	R	R	+GG-+GG-	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 AND 7 CHANGE	R	R	R	R	R	R	+YG-+YG-	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 AND 8 CHANGE	R	R	R	R	R	R	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 AND 8 ALT.	R	R	R	R	R	R	G	G	G	G	G	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE/COUNTDOWN	R	R	R	R	R	R	G	G	G	G	G	FLDW	FLDW	FLDW	FLDW	DW	DW	DW	DW
4 AND 8 ALT. CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

GENERAL NOTES CONTINUED

- LOCATION OF ACCESSIBLE PEDESTRIAN PUSHBUTTONS MUST MEET THE LOCATION REQUIREMENTS OF THE MUTCD, SECTION 4E-09 AND FIGURE 4E-2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNAL: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM 60"x60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN 2%.
- PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA, DOES NOT HAVE TO REACH MORE THAN 18"
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- DETECTABLE WARNING SURFACES TO BE INSTALLED BY OTHERS. REFER TO ROADWAY PLANS.
- PAVEMENT MARKING REMOVAL TO BE DONE AS PART OF RESURFACING PROJECT. REFER TO SPECIFICATIONS FOR DETAILS.
- ALL EXISTING CONDUIT AND HANDHOLES ARE TO BE USED UNLESS OTHERWISE NOTED BY THE ENGINEER.



SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 129 (PARK HEIGHTS AVENUE) AND SLADE AVENUE

BALTIMORE, MARYLAND

GENERAL INFORMATION

SCALE NONE DATE DECEMBER 2007 CONTRACT NO. BA5875177

DESIGNED BY MLH COUNTY BALTIMORE

DRAWN BY MLH LOGMILE 03012900.00

CHECKED BY DAE TMS NO. 1-180

FAP NO. TOD NO.

TS NO. 3081-D-G1 DRAWING - OF SHEET NO. 2 OF 2



**RUMMEL, KLEPPER
& KAHL, LLP**

CONSULTING ENGINEERS

81 MOSHER STREET
BALTIMORE, MARYLAND 21217

TEL: (410) 728-2900 FAX: (410) 383-3270

PLOTTED: Wednesday, December 12, 2007 AT 10:58 AM
FILE: M:\projects\2006\06049_district4\Task 1 MD 129\CADD\Plans\pSG_MD129@SLADE.dgn